FIG. 1

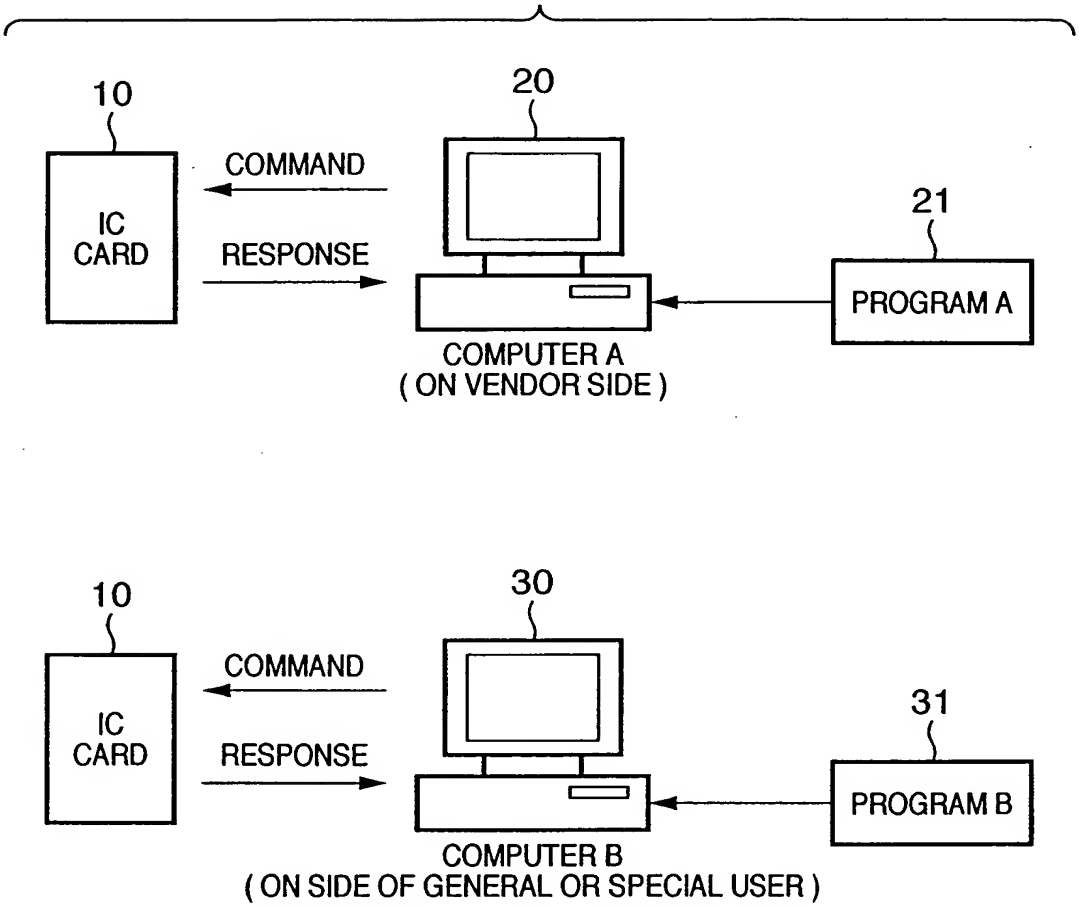

10
IC CARD
COMMAND
RESPONSE
20
21
PROGRAM A
COMPUTER A
(ON VENDOR SIDE)
10
IC CARD
COMMAND
RESPONSE
30
31
PROGRAM B
COMPUTER B
(ON SIDE OF GENERAL OR SPECIAL USER)

FIG. 2

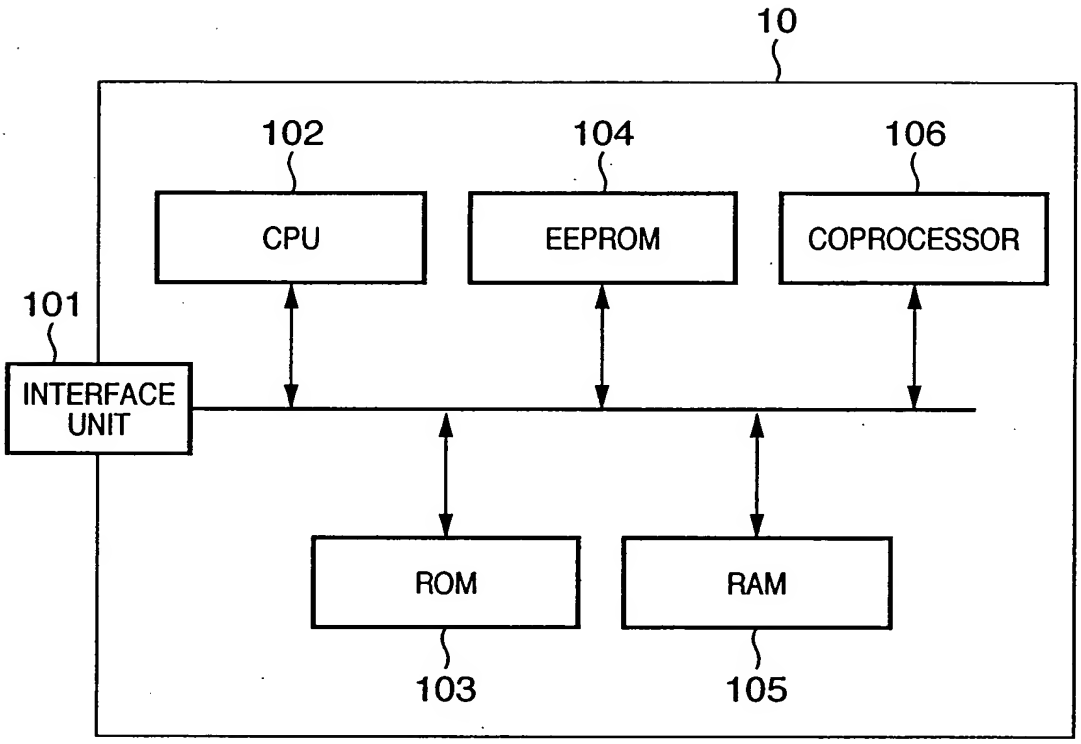

10
102
104
106
CPU
EEPROM
COPROCESSOR
101
INTERFACE UNIT
ROM
RAM
103
105

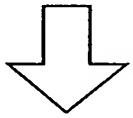
FIG. 3

FLAG	KEY NO.	SECRET KEY
ON	0	0x9876543210AB...
OFF	1	0x876543210ABC...
OFF	2	0x76543210ABCD...
:	:	:
OFF	15	0xF9876543210A...

SECRET KEY FOR GENERAL USER

SECRET KEY FOR SPECIAL USER

AFTER KEY SETTING COMMAND (WHICH SPECIFIES KEY NO. 2) IS EXECUTED



FLAG	KEY NO.	SECRET KEY
OFF	0	0x9876543210AB...
OFF	1	0x876543210ABC...
ON	2	0x76543210ABCD...
:	:	:
OFF	15	0xF9876543210A...

SECRET KEY FOR GENERAL USER

SECRET KEY FOR SPECIAL USER

FIG. 4A

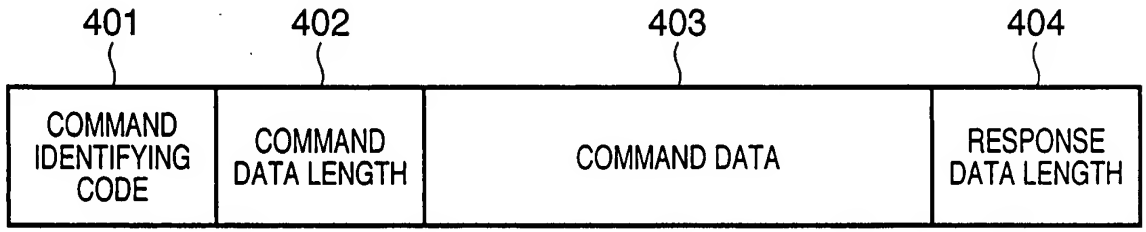

401
402
403
404
COMMAND IDENTIFYING CODE
COMMAND DATA LENGTH
COMMAND DATA
RESPONSE DATA LENGTH

FIG. 4B

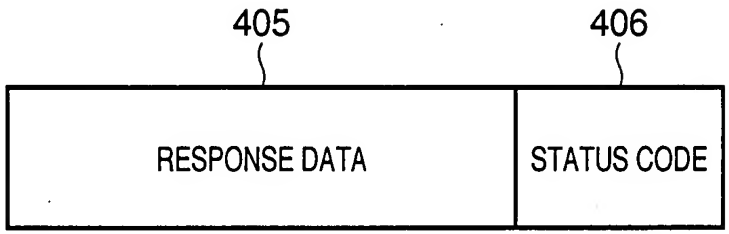

405
406
RESPONSE DATA
STATUS CODE

FIG. 5

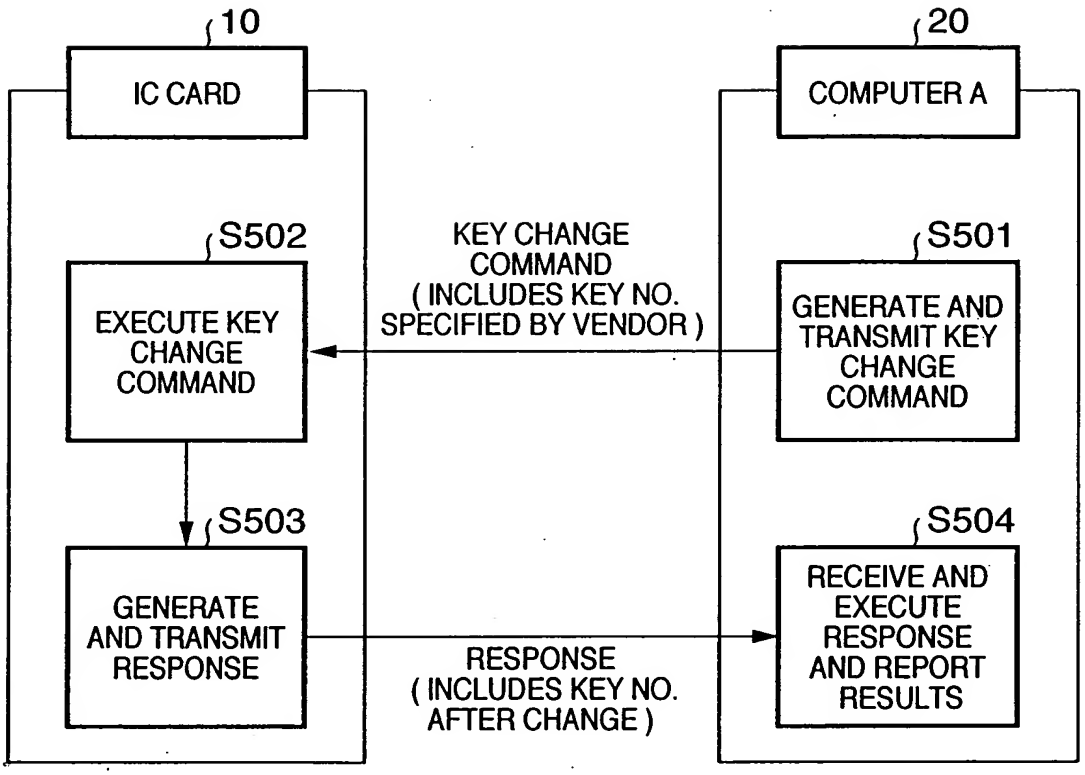

10
IC CARD
20
COMPUTER A
S502
EXECUTE KEY CHANGE COMMAND
KEY CHANGE COMMAND (INCLUDES KEY NO. SPECIFIED BY VENDOR)
S501
GENERATE AND TRANSMIT KEY CHANGE COMMAND
S503
GENERATE AND TRANSMIT RESPONSE
RESPONSE (INCLUDES KEY NO. AFTER CHANGE)
S504
RECEIVE AND EXECUTE RESPONSE AND REPORT RESULTS

FIG. 6

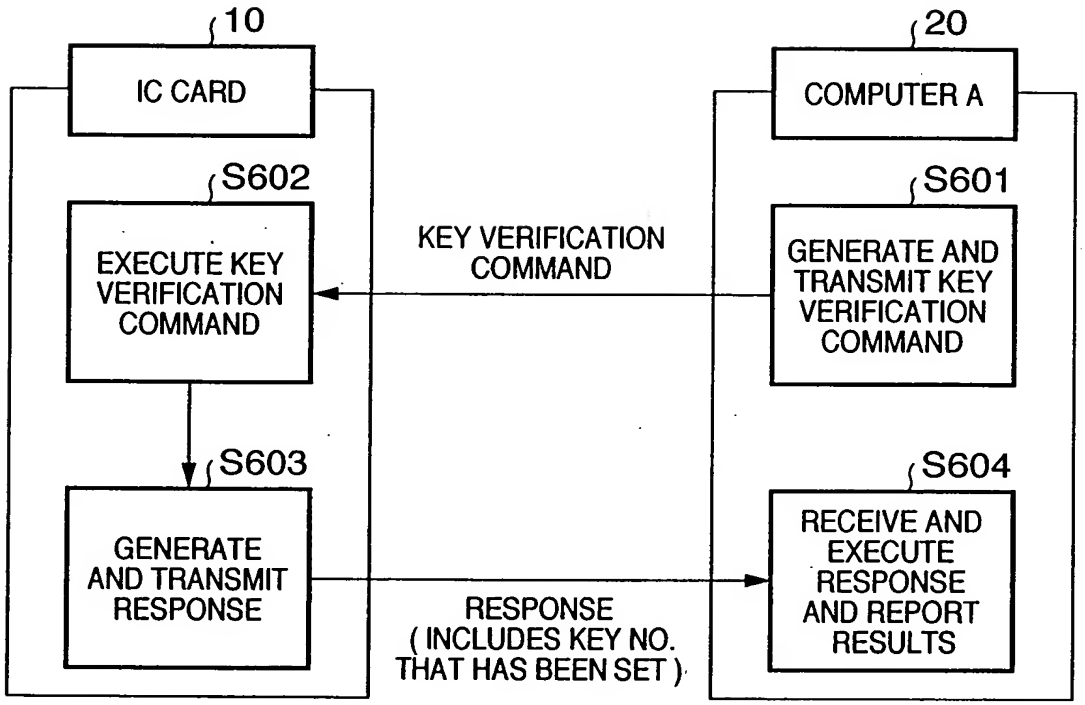

10
IC CARD
20
COMPUTER A
S602
EXECUTE KEY VERIFICATION COMMAND
KEY VERIFICATION COMMAND
S601
GENERATE AND TRANSMIT KEY VERIFICATION COMMAND
S603
GENERATE AND TRANSMIT RESPONSE
S604
RECEIVE AND EXECUTE RESPONSE AND REPORT RESULTS
RESPONSE (INCLUDES KEY NO. THAT HAS BEEN SET)

FIG. 7

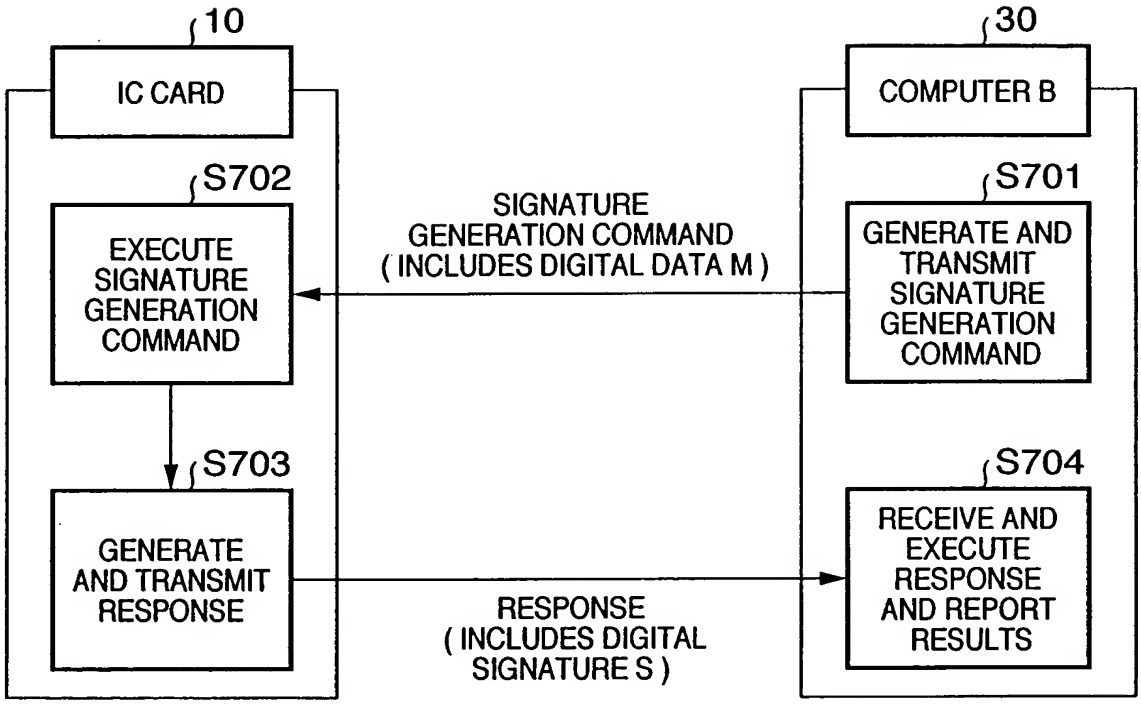

10
IC CARD
30
COMPUTER B
S702
EXECUTE SIGNATURE GENERATION COMMAND
S701
GENERATE AND TRANSMIT SIGNATURE GENERATION COMMAND
SIGNATURE GENERATION COMMAND (INCLUDES DIGITAL DATA M)
S703
GENERATE AND TRANSMIT RESPONSE
S704
RECEIVE AND EXECUTE RESPONSE AND REPORT RESULTS
RESPONSE (INCLUDES DIGITAL SIGNATURE S)

FIG. 8

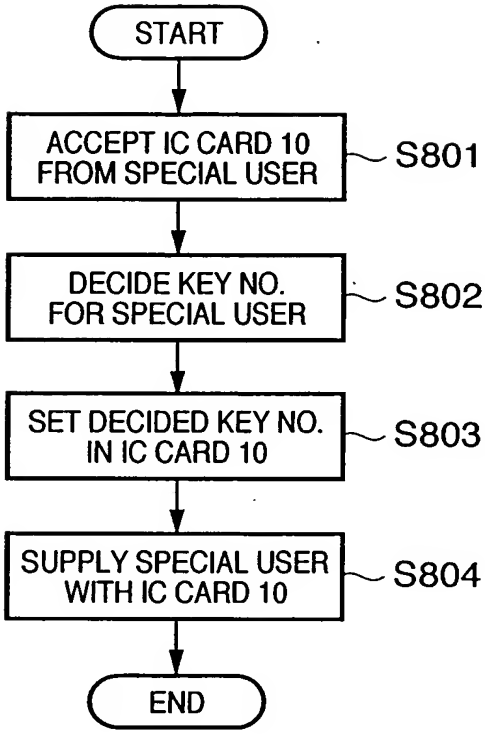
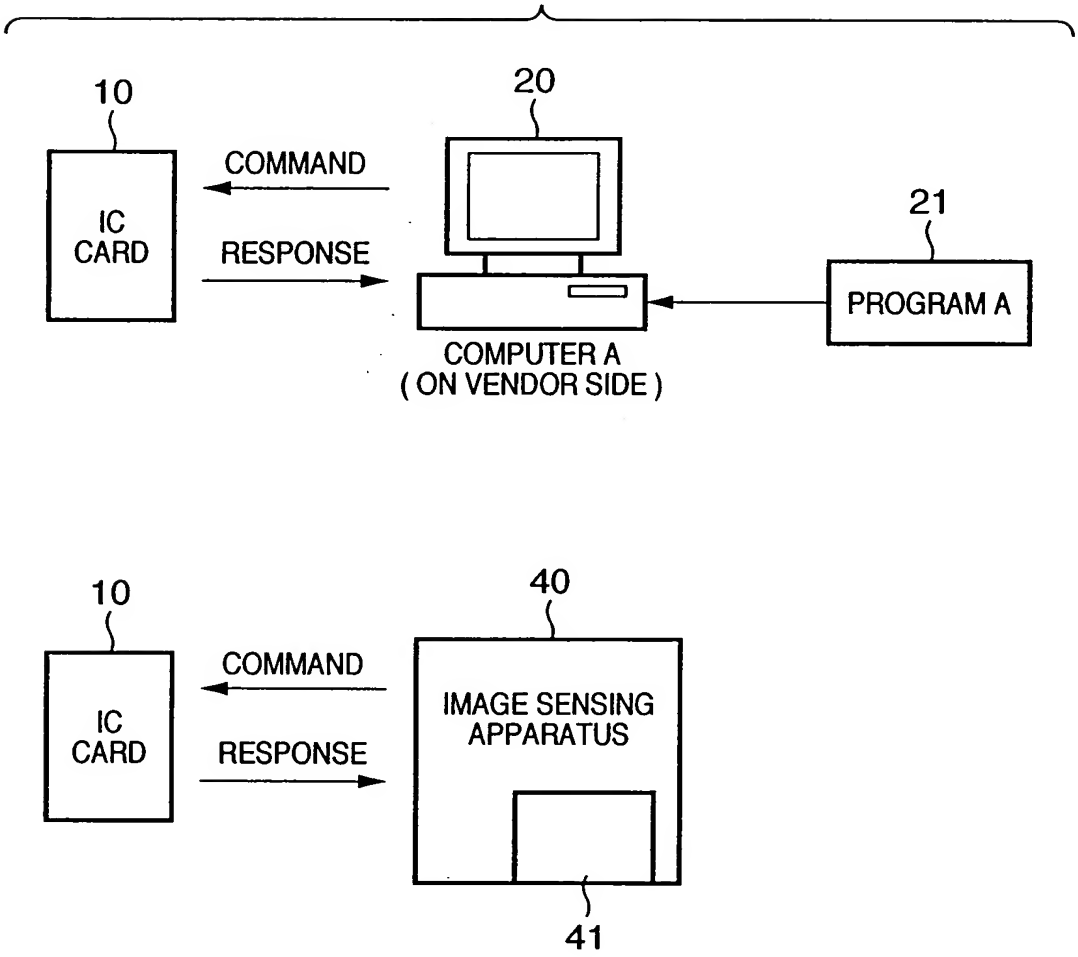

START
ACCEPT IC CARD 10 FROM SPECIAL USER
S801
DECIDE KEY NO. FOR SPECIAL USER
S802
SET DECIDED KEY NO. IN IC CARD 10
S803
SUPPLY SPECIAL USER WITH IC CARD 10
S804
END

FIG. 9


10
IC CARD
COMMAND
RESPONSE
20
21
PROGRAM A
COMPUTER A
(ON VENDOR SIDE)
10
IC CARD
COMMAND
RESPONSE
40
IMAGE SENSING APPARATUS
41